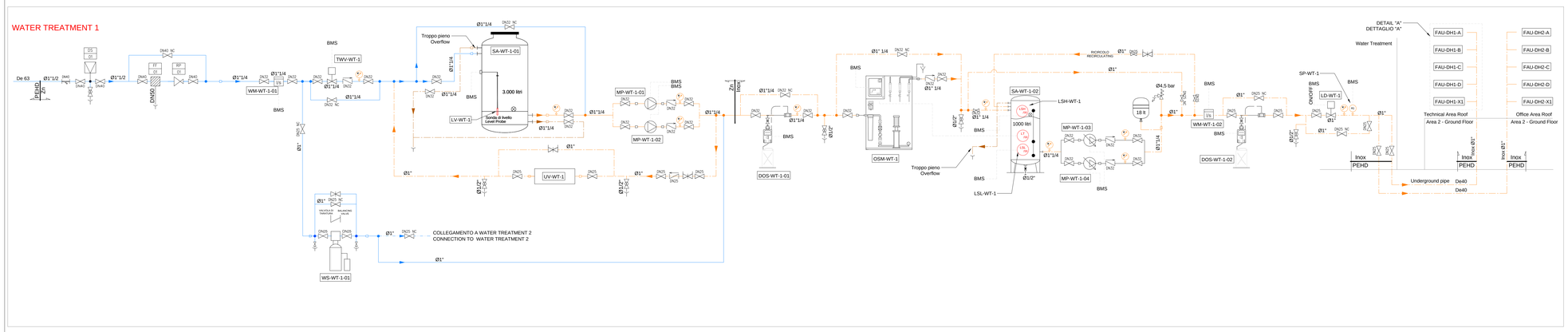

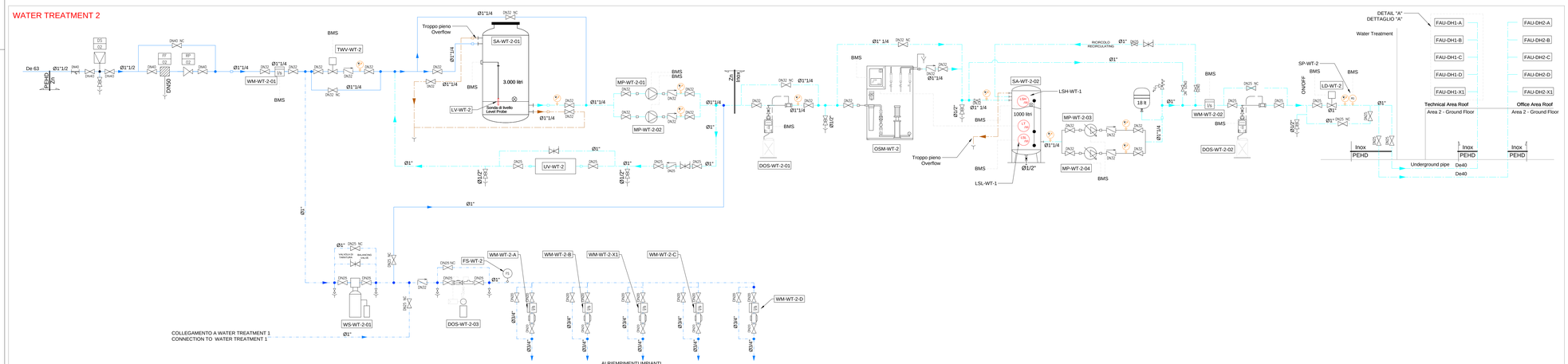

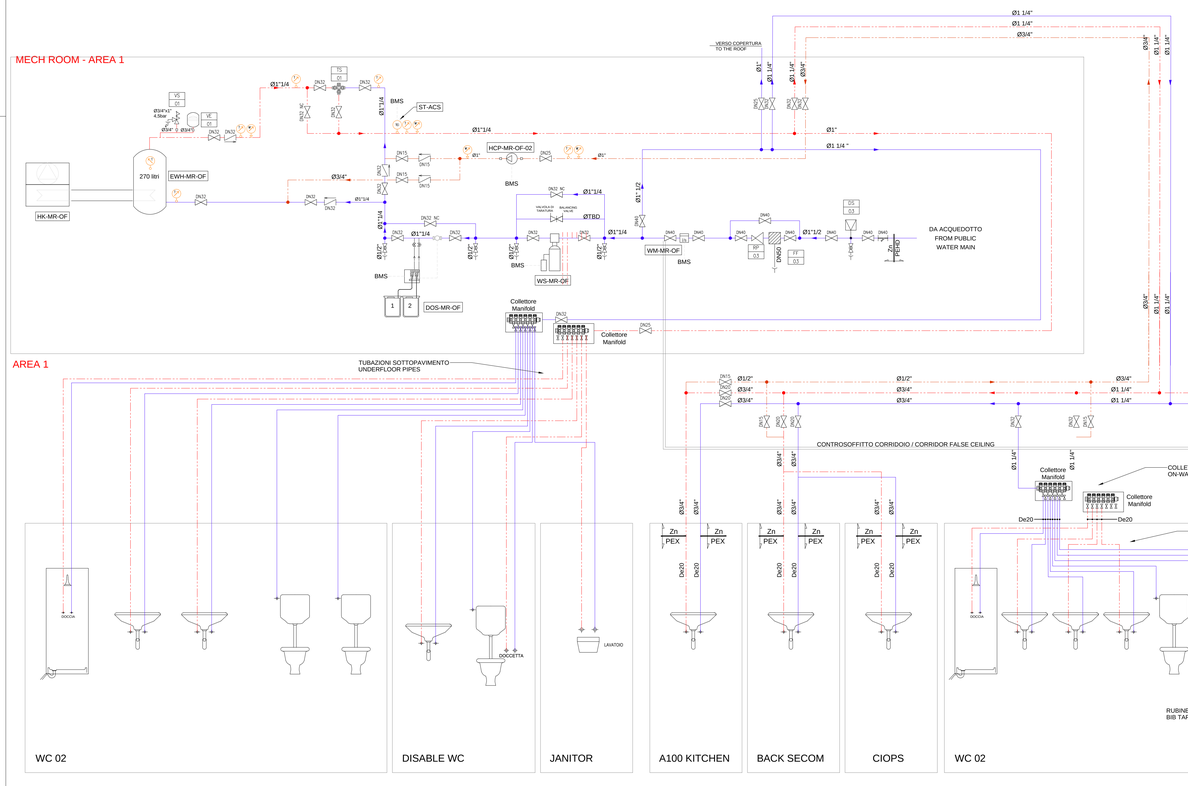

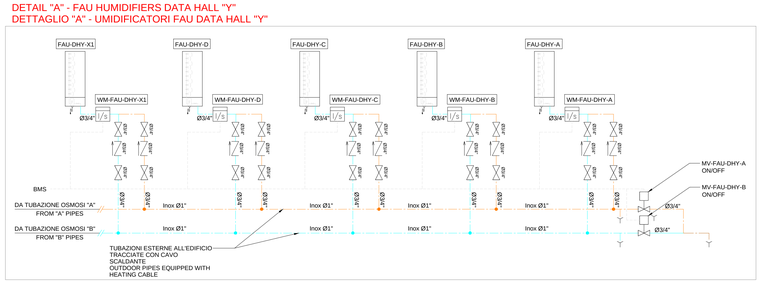

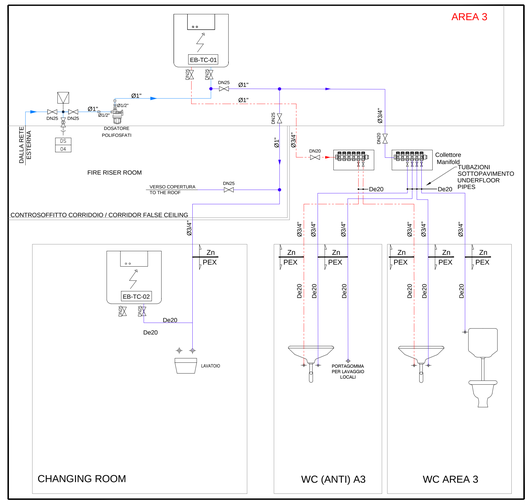

APPARECCHIATURE LOCALI TRATTAMENTO ACQUA
WATER TREATMENT ROOM EQUIPMENT

TAG	DESCRIPTION
DS 0X	DISCONNETTORE IDRAULICO CON CORPO IN BRONZO E FILTRO INCORPORATO PER FLUIDI DI CATEGORIA 4 SECONDO NORMA UNI EN 1717 E RISPONDENTE ALLA NORMA 12729 BACKFLOW PREVENTER WITH BRONZE BODY AND BUILT-IN FILTER FOR CATEGORY FLUIDS IN ACCORDANCE WITH UNI EN 1717 AND COMPLIANT WITH EN 12729
FF 0X	FILTRO AUTOPULENTE SEMI AUTOMATICO A CICLONE CON FLUSSO ELICOIDALE COMPLETO DI AUTOMATISMO CON SCARICO AUTOMATICO E TIMER SEMI-AUTOMATIC SELF CLEANING CYCLONE FILTER WITH HELICAL FLOW COMPLETE WITH AUTOMATIC DRAIN AND TIMER
RP 0X	RIDUTTORE DI PRESSIONE CON VALCOLA BLANCIATA E FILTRO INTEGRATO PRESSURE REDUCER EQUIPPED WITH BALANCED VALVE E BUILT-IN FILTER
FF 0X	FILTRO AUTOPULENTE SEMI AUTOMATICO A CICLONE CON FLUSSO ELICOIDALE COMPLETO DI AUTOMATISMO CON SCARICO AUTOMATICO E TIMER SEMI-AUTOMATIC SELF CLEANING CYCLONE FILTER WITH HELICAL FLOW COMPLETE WITH AUTOMATIC DRAIN AND TIMER

SIMBOLO	DESCRIZIONE
	ADDUZIONE ACQUA POTABILE CLEAN WATER SUPPLY
	ADDUZIONE ACQUA FREDDA SANITARIA COLD WATER SUPPLY
	ADDUZIONE ACQUA CALDA SANITARIA HOT WATER SUPPLY
	RICIRCOLO ACQUA CALDA SANITARIA RECIRCULATING HOT WATER
	ACQUA OSMOTIZZATA "A" OSMOTIZED WATER "A"
	ACQUA OSMOTIZZATA "B" OSMOTIZED WATER "B"
	ACQUA REMPIMENTO IMPIANTI FILLING SYSTEM WATER

APPARECCHIATURE LOCALE TRATTAMENTO ACQUA GANTRY
GANTRY WATER TREATMENT EQUIPMENT

TAG	DESCRIPTION
SA-WT-X-01	SERBATOIO DI ACCUMULO IN POLIETILENE. VOLUME 3000 litri POLYETHILENE TANK. CAPACITY 3000 liters
SA-WT-X-02	SERBATOIO DI ACCUMULO IN POLIETILENE. VOLUME 1000 litri POLYETHILENE TANK. CAPACITY 1000 liters
MP-WT-X-01 MP-WT-X-02	POMPA MULTISTADIO MULTISTAGE PUMP - Portata / Water flow rate: 2000 l/h - Prevalenza / External static pressure: 30 mca
MP-WT-X-03 MP-WT-X-04	SKID PREMONTATO COMPLETI DI POMPE MULTISTADIO E VASI DI ESPANSIONE PREMOUNTED SKID EQUIPPED WITH MULTISTAGE PUMPS AND EXPANSION VESSELS - Portata / Water flow rate: 1000 l/h - Prevalenza / External static pressure: 30 mca - Vaso di espansione / Expansion vessel: TBD
UV-WT-X	DEBATTERIZZATORE A RAGGI UV MONOLAMPADA PER LA DISINFEZIONE DELL'ACQUA ANTI-BACTERIAL SINGLE UV LAMP - Portata elaborata: 1500 l/h
DOS-WT-X-01	SISTEMA DI DOSAGGIO AUTOMATICO PRODOTTO ANTINCROSTANTE LIQUIDO PER IMPIANTI AD OSMOSI INVERSA AUTOMATIC DOSING STATION OF ANTI-SCALE PRODUCT FOR OSMOSIS SYSTEMS
DOS-WT-X-02	SISTEMA DI DOSAGGIO AUTOMATICO PRODOTTO ANTINCROSTANTE ANTICORROSIVO BIOCIDA PER LA PROTEZIONE DI IMPIANTI DI UMIDIFICAZIONE - 25 KG AUTOMATIC DOSING STATION OF ANTI-CORROSIVE AND ANTI-SCALE PRODUCT FOR HUMIDIFICATION SYSTEMS - 25 KG
OSM-WT-X	STAZIONE COMPLETA DI DEMINERALIZZATORE AD OSMOSI INVERSA REVERSE OSMOSIS SYSTEM - Portata permeato / Permeate flow rate: 300 l/h
WS-WT-1-01 WS-WT-2-01	ADDOLCITORE ELETTRONICO Ø1" WATER SOFTENER Ø1"
DOS-WT-2-03	SISTEMA DI DOSAGGIO AUTOMATICO PRODOTTO ANTICORROSIVO E ANTINCROSTANTE PER IMPIANTI DI RISCALDAMENTO E RAFFREDDAMENTO - 25 KG AUTOMATIC DOSING STATION OF ANTI-CORROSIVE AND ANTI-SCALE PRODUCT HEATING AND COOLING SYSTEMS - 25 KG
WM-WT-X-01	CONTATORE LANCIA IMPULSI PER ACQUA FREDDA - WATER TREATMENT "X" WATER METER FOR COLD WATER - WATER TREATMENT "X" - Dimensione / Size: 1" 1/4
WM-WT-X-02	CONTATORE LANCIA IMPULSI PER ACQUA FREDDA - WATER TREATMENT "X" WATER METER FOR COLD WATER - WATER TREATMENT "X" - Dimensione / Size: 1"
WM-WT-2-Y	CONTATORE LANCIA IMPULSI PER ACQUA FREDDA PER CARICO IMPIANTI RAMO "Y" WATER METER FOR COLD WATER BRANCH "Y" - Dimensione / Size: 3/4"
WM-FAU-DHY-X	CONTATORE LANCIA IMPULSI PER ACQUA FREDDA PER UMIDIFICATORI DATA HALL "Y" RAMO "X" WATER METER FOR FAU HUMIDIFIERS DATA HALL "Y" BRANCH "X" - Dimensione / Size: 3/4"

APPARECCHIATURE LOCALE TRATTAMENTO ACQUA UFFICI - MECH ROOM
OFFICE MECH ROOM WATER TREATMENT EQUIPMENT

TAG	DESCRIPTION
EWH-MR-OF	UNITÀ INTERNA AD ESPANSIONE DIRETTA CON BOLLITORE ACQUA CALDA SANITARIA 270 litri INTEGRATO E RESISTENZA ELETTRICA AGGIUNTIVA 1500+1000 W DIRECT EXPANSION INDOOR UNIT EQUIPPED WITH DOMESTIC HOT WATER TANK 270 liters AND ADDITIONAL ELECTRIC RESISTANCE 1500+1000 W
HK-MR-OF	UNITÀ ESTERNA AD ESPANSIONE DIRETTA PER PRODUZIONE ACS OUTDOOR UNIT FOR DOMESTIC HOT WATER PRODUCTION
VS 01	VALVOLA DI SICUREZZA Ø3/4" x1" Tar. 4,5 bar SAFETY VALVE Ø3/4" x1" @ 4,5 bar
VE 01	VASO DI ESPANSIONE EXPANSION VESSEL - Volume: 35 l. - Precarica /Precharge: 2,5 bar
TS 01	MISCELATORE TERMOSTATICO THERMOSTATIC MIXER - Pmax / Mpra: 14 bar; - Tmax / Mtemp: 85°C
HCP-MR-OF-02	CIRCOLATORE ELETTRONICO PER RICIRCOLO ACS ELECTRONIC PUMP FOR DHW RECIRCULATION - Portata / Water flow rate: 1500 l/h - Prevalenza / External static pressure: 5 m.c.a.
WS-MR-OF	ADDOLCITORE ELETTRONICO WATER SOFTENER
DOS-MR-OF	SISTEMA DI DOSAGGIO AUTOMATICO PER I SEGUENTI PRODOTTI: 1: ANTICORROSIVO ANTINCROSTANTE LIQUIDO PER EVITARE INCROSTAZIONE NEGLI SCAMBIATORI DI CALORE PER ACQUA CALDA SANITARIA 2: DISINFETTANTE ANTIVIRALE UNIVERSALE AUTOMATIC DOSING SYSTEM FOR OF THE FOLLOWING PRODUTCS: 1: ANTI-SCALE AND ANTI-CORRIOSIVE TREATMENT FOR DOMESTIC HOT WATER 2: UNIVERSAL ANTIVIRAL DISINFECTANT
WM-MR-OF	CONTATORE LANCIA IMPULSI PER ACQUA FREDDA WATER METER FOR COLD WATER - Dimensione / Size: 1 1/2"
EB-TC-01	SCALDACQUA ELETTRICO - ACCUMULO 30 litri DOMESTIC HOT WATER HEATER - CAPACITY 30 liters
EB-TC-02	SCALDACQUA ELETTRICO - ACCUMULO 15 litri DOMESTIC HOT WATER HEATER - CAPACITY 15 liters

VALVES	VALVOLAME
SHUT-OFF VALVE	VALVOLA DI INTERCETTAZIONE
BUTTERFLY VALVE	VALVOLA DI INTERCETTAZIONE A FARFALLA
GLOBE VALVE	VALVOLA DI INTERCETTAZIONE A SFERA
CHECK VALVE	VALVOLA DI RITEGNO
REGULATION VALVE	VALVOLA DI TARATURA
MOTORIZED THREE WAY VALVE	VALVOLA A TRE VIE MOTORIZZATA
MOTORIZED TWO WAY VALVE	VALVOLA A DUE VIE MOTORIZZATA
SAFETY VALVE	VALVOLA DI SICUREZZA
PRESSURE RELIEF VALVE	VALVOLA DI SFIORO
PRESSURE REDUCER	RIDUTTORE DI PRESSIONE
RIDUZIONE CONCENTRICA	RIDUZIONE CONCENTRICA
FLEXIBLE CONNECTION	GIUNTO ANTIVIBRANTE
Y STRAINER	FILTRO A Y
STRAINER	FILTRO
WATER METER	CONTALITRI
FLOAT VALVE	VALVOLA A GALLEGGIANTE
PRESSURE CONTROL VALVE	VALVOLA DI REGOLAZIONE PRESSIONE
DYNAMIC BALANCING VALVE	VALVOLA DI BILANCIAMENTO DINAMICA
PIPED DISCHARGE	SCARICO CONVOGLIATO
DISCHARGE VALVE	VALVOLA DI SCARICO
AUTOMATIC AIR RELIEF VALVE	VALVOLA DI SFIATO ARIA AUTOMATICA
WATER HAMMER ARRESTOR	AMMORTIZZATORE COLPO D'ARIETE
BACKFLOW PREVENTER	DISCONNETTORE
RELIEF VALVE	VALVOLA DI SOVRAPRESSIONE

N°	Data	Revision
00	05/09/2025	FIRST EMISSION
01	07/11/2025	REVISION

COMMITTENTE / CUSTOMER:

STACK INFRASTRUCTURE

Stack Emea - Italy S.p.A. - Via Marche, 8/10 - Siziano (PV)

GENERAL CONTRACTOR

BOUYGUES ENERGIES & SERVICES

Bouygues E&S Italia S.p.A.
Via G.Stephenson, 73
Milano, Italia
T +39 02 33 21 101
F +39 02 35 57 574
info@bouygues-es.com
www.bouygues-es.it

PROGETTAZIONE DEFINITIVA/DEFINITIVE DESIGN

IRR Engineering S.r.l.
Sede Legale e amministrativa Via Mecenate 90 - 20138 Milano (MI)
e-mail: info@irrengineering.it

CONSTRUCTION AND MANAGEMENT TEAM

JKWH Energy Services S.r.l.
Via del Bosco Rinnovato,8
20057 Assago (MI) - Italia
T +39 02 70018428
info@jkwh.it

IRR Engineering S.r.l.
Sede Legale e amministrativa Via Mecenate 90 - 20138 Milano (MI)
e-mail: info@irrengineering.it

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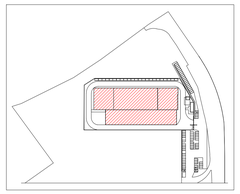
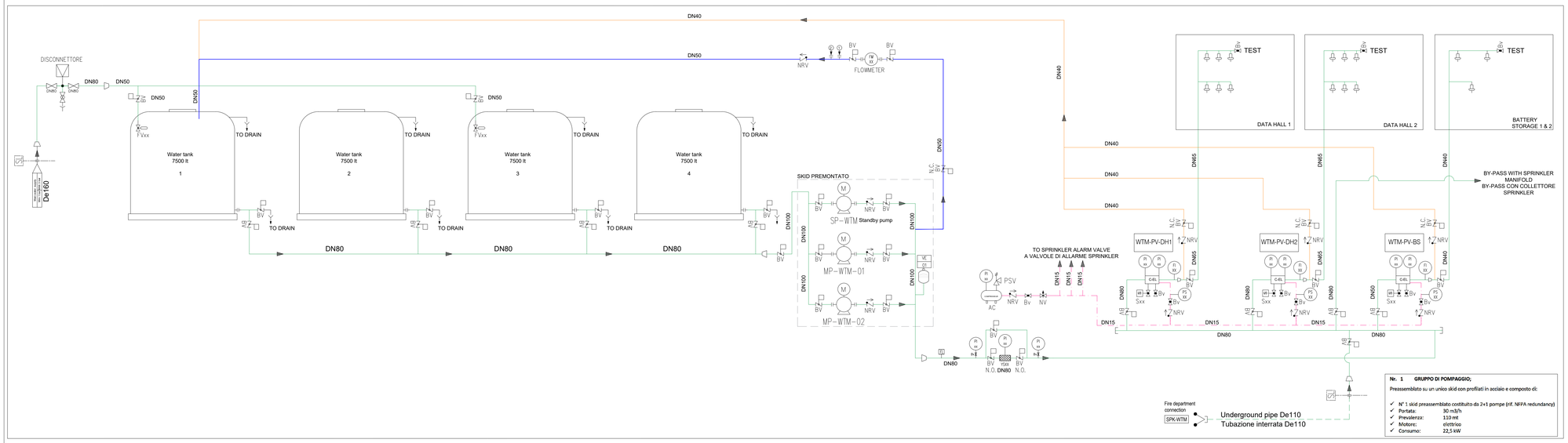
KEY PLAN



PROGETTO / PROJECT: Stack data center MIL08B		
LIVELLO PROGETTAZIONE / DESIGN LEVEL: RIBA 5		
TITOLO/DESCRIPTION: SCHEMA FUNZIONALE IMPIANTO IDRICO SANITARIO SLD SANITARY WATER SYSTEM		
DISEGNATO DA/ DRAWN BY: RST	CONTR. DA/ CHECKED BY: DGN	APPROVATO DA/ APPROVED BY: CLL
DATA/DATE: 05/09/2025	SCALA/SCALE: -	
NOME FILE/FILENAME: 25-503-D-M-SC-200-00		
COMESSA/JOB: 25-503	FORMATO/SHEET: A0	
TAVOLA/DRAWING: MIL08B-BYG-ZZ-XX-SC-M-53001 STATUS CODE: S1		



Nr. 1 GRUPPO DI POMPAGGIO;

Preassemblato su un unico skid con profilati in acciaio e composto di:

- ✓ N° 1 skid preassemblato costituito da 2+1 pompe (rif. NFPA redundancy)
- ✓ Portata: 90 m3/h
- ✓ Prevalenza: 110 mt
- ✓ Motore: elettrico
- ✓ Consumo: 22,5 kW

LEGENDA APPARECCHIATURE WATER MIST
WATER MIST EQUIPMENT KEY

PS	PS	Pressure switch
M	MP SP	Main pump(s) Standby pump
		To drain
	HCF	High capacity filter
	YS	Y Strainer
	NV	Needle valve
C-EL Sxx	C-EL PA	VID Preaction valve
COMPRESSOR AC	COMP	Air compressor

LEGENDA APPARECCHIATURE WATER MIST
WATER MIST EQUIPMENT KEY

	BV	Butterfly valve
	Bv	Ball valve
	FV	Float valve
	NRV	Non return valve
	PR	Pressure reducer
FI	FI	Flow indicator
FM	FM	Flowmeter
PI	PI	Manometer
PT	PT	Pressure transmitter

FF - Legenda Tubazioni
FF - Pipe Systems Legends

WTM	ALIMENTAZIONE RETI WATER MIST - ACCIAIO INOX *WATER MIST FEEDING SYSTEM - STAINLESS STEEL*
COMPRESSED AIR	ARIA COMPRESSA *COMPRESSED AIR*

TABELLA 1: TUBI INOXPRES - DIMENSIONI E CARATTERISTICHE

Diametro esterno x spessore mm	Diametro nominale DN	Diametro interno mm	Massa kg/m	Contenuto in acqua l/m
15 x 1	12	13	0,351	0,133
18 x 1	15	16	0,426	0,201
22 x 1,2	20	19,6	0,625	0,302
28 x 1,2	25	25,6	0,805	0,514
35 x 1,5	32	32	1,258	0,804
42 x 1,5	40	39	1,521	1,194
54 x 1,5	50	51	1,972	2,042
76,1 x 2	65	72,1	3,711	4,080
88,9 x 2	80	84,9	4,352	5,660
108 x 2	100	104	5,308	8,490
139,7 x 2*	125	135,7	6,896	14,460
168,3 x 2*	150	164,3	8,328	21,200
139,7 x 2,6	125	134,5	8,926	14,208
168,3 x 2,6	150	163,1	10,788	20,893

WATER MIST
LEGENDA STRUMENTI / INSTRUMENTAL KEY

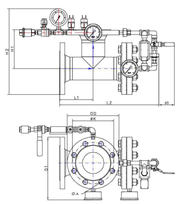
LG	INDICATORE DI LIVELLO A VETRO LEVEL INDICATOR
PS	PRESSOSTATO PRESSURE SWITCH
PAL	ALLARME BASSA PRESSIONE LOW PRESSURE ALARM
PAH	ALLARME ALTA PRESSIONE HIGH PRESSURE ALARM
PSL	PRESSOSTATO DIFFERENZIALE DI BASSA PRESSIONE LOW PRESSURE SWITCH
PSH	PRESSOSTATO DIFFERENZIALE DI ALTA PRESSIONE HIGH PRESSURE SWITCH
LAH	ALLARME DI ALTO LIVELLO HIGH LEVEL ALARM
LAL	ALLARME DI BASSO LIVELLO LOW LEVEL ALARM
LSH 1	LIVELLOSTATO DIFFERENZIALE DI ALTO LIVELLO HIGH LEVEL SWITCH
LSL 1	LIVELLOSTATO DIFFERENZIALE DI BASSO LIVELLO LOW LEVEL SWITCH
FI	MISURATORE DI PORTATA FLOW METER
FS	INDICATORE DI FLUSSO FLOW SWITCH
FA	ALLARME DI FLUSSO FLOW ALARM
PA	ALLARME OTTICO-ACUSTICO PANEL ALARM

TIPICO STAZIONE DI CONTROLLO A PRE-AZIONE WATER MIST
TYPICAL WATER MIST PREACTION VALVE ASSEMBLY

Sizes Inlet	Outlet	KV-Value		Pressure gauge location
DN 80	DN 80	1800	l/min at 1 bar pressure loss	On pilot chamber flange and outlet flanges
3" NPT	3" NPT	1800	l/min at 1 bar pressure loss	On pilot chamber flange and outlet flanges

Dimensions

type	DN80	3" NPT
L1	130 mm	188 mm
L2	384 mm	442 mm
H1	130 mm	208 mm
H2	500 mm	500 mm
D1	230 mm	250 mm
OD	200 mm	200 mm
øK	160 mm	160 mm
øA	8 x ø18	8 x ø18



NOTE: To allow for maintenance while installed, the Model C-EL shall have a free space of 250 mm at the valve trim side.

NOTE: To ensure correct operation the fluid should be filtered to eliminate all traces of impurity subject to magnetic attraction, which would inevitably deposit on the cores of the solenoid valve, which are always magnetized, causing the formation of oxide as well as contact problem.

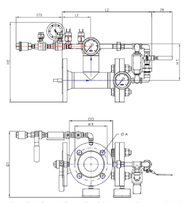
Impuls solenoid valve

- Impulse feed from 24 V DC for a period lasting from 20 to 100 ms.

Sizes Inlet	Outlet	KV-Value		Pressure gauge location
DN 50	DN 50	450	l/min at 1 bar pressure loss	On pilot chamber flange and outlet flanges
2" NPT	2" NPT	450	l/min at 1 bar pressure loss	On pilot chamber flange and outlet flanges

Dimensions

type	DN50	2" NPT
L1	109 mm	138 mm
L2	340 mm	370 mm
H1	137 mm	166 mm
H2	303 mm	303 mm
D1	190 mm	210 mm
OD	165 mm	165 mm
øK	125 mm	125 mm
øA	4 x ø18	4 x ø18

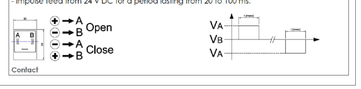


NOTE: To allow for maintenance while installed, the Model C-EL shall have a free space of 225 mm at the valve trim side.

NOTE: To ensure correct operation the fluid should be filtered to eliminate all traces of impurity subject to magnetic attraction, which would inevitably deposit on the cores of the solenoid valve, which are always magnetized, causing the formation of oxide as well as contact problem.

Impuls solenoid valve

- Impulse feed from 24 V DC for a period lasting from 20 to 100 ms.



N°	Data	Revision
00	04/12/2025	FIRST EMISSION

COMMITTENTE / CUSTOMER:

STACK INFRASTRUCTURE

Stack Emea - Italy S.p.A. - Via Marche, 8/10 - Siziano (PV)

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BOUYGUES ENERGIES & SERVICES

Bouygues E&S Italia S.p.A.
Via G.Stephenson, 73
Milano, Italia
T +39 02 33 21 101
F +39 02 35 57 574
info@bouygues-es.com
www.bouygues-es.it

PROGETTAZIONE DEFINITIVA/DEFINITIVE DESIGN

IRR Engineering S.r.l.
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CONSTRUCTION AND MANAGEMENT TEAM

JKWH Energy Services S.r.l.
Via del Bosco Rinnovato,8
20057 Assago (MI) - Italia
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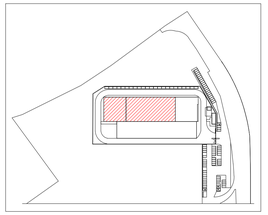
KEY PLAN



PROGETTO / PROJECT:
Stack data center
MIL08B

LIVELLO PROGETTAZIONE / DESIGN LEVEL
RIBA 5

TITOLO/DESCRIPTION:
SCHEMA FUNZIONALE
IMPIANTO ANTINCENDIO - WATER MIST

SLD FIREFIGHTING SYSTEM - WATER MIST

DISEGNATO DA: DRAWN BY:	CONTR. DA: CHECKED BY:	APPROVATO DA: APPROVED BY:
RST	DGN	CLL

DATA/DATE:	SCALA/SCALE:
04/12/2025	-

NOME FILE/FILENAME:
25-503-D-M-SC-500-00

COMESSA/JOB:	FORMATO/SHEET:
25-503	A0

TAVOLA/DRAWING:
MIL08B-BYG-ZZ-XX-SC-M-58003

STATUS CODE: S0